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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PROSKAUER ROSE LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110			EXAMINER MCGUTHRY BANKS, TIMA MICHELE	
			ART UNIT	PAPER NUMBER
			1793	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,099	ENGL ET AL.	
	Examiner	Art Unit	
	Tima M. McGuthry-Banks	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 1, 4, and 12 are currently amended, Claims 2 and 3 are as originally presented, Claims 5-11 and 13-16 are previously presented, Claim 17 has been withdrawn and Claims 18 and 19 are cancelled.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman et al (2003/0145911) in view of Satoh (US 4,861,390).

Hoffman et al teaches producing strips from steel. The steel has the composition as listed on page 1 (or Claim 1). The steel has high strength (Claim 1). The steel strip is cold-rolled (Claim 10). The cold rolled strips are subsequently cold formed (Claim 16). Regarding Claim 4, the strip is cast, hot rolled, coiled, and cold rolled (Claims 9 and 10). Regarding Claims 5 and 6, the cast stock is heated to 1100 °C (Claim 9). Regarding Claim 7, the final rolling temperature is at least 800 °C (Claim 9). Regarding Claim 8, the coiling temperature is 450-700 °C (Claim 9). Regarding Claims 9-12, annealing is at 600-1100 °C (Claim 11) hood or bell annealing at 600-750 °C (Claim 12) , and continuous annealing at 750-1100 °C (Claim 13). Regarding Claim 13, the cold rolling reduction is 30-75% (Claim 15). Regarding Claim 14, the Si content is > 2.70%

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(Claim 3). Regarding Claims 15 and 16, the B content is 0.002-0.01% (Claim 4). However, Hoffman et al does not disclose the degree of cold forming as claimed.

Satoh et al teaches a method of manufacturing formable as-rolled thin steel sheets (abstract). The sheets undergo skin-pass rolling of not more than 10% (column 12, lines 30-39). The effect of high strain rate is not substantially dependent on the chemical composition of the steel (column 10, lines 33-36). The examiner notes that this process does not include cold rolling (column 4, line 63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the steel in Hoffman et al with a cold forming process of less than 10% as taught by Satoh et al, since both Satoh et al (in column 1, line 14) and Hoffman et al (Claim 18) both teach producing steel strips from rolled processes using cold forming techniques for use as automobile components.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guelton et al (US 6,358,338) in view of the Satoh et al alone or further in view of Brager et al (US H326) or Japanese patent document 58-144418 (JP '418)¹.

With respect to claims 1-4 Guelton et al (abstract) discloses a steel strip made by casting, cold rolling and annealing and having composition overlapping the claimed ranges as follows:

Element	Composition wt%		
	Instant claim 1	Guelton et al	Overlap
C	≤ 1.00	0.001 to 1.6	0.001 to 1.00
Mn	7.00 to 30.00	6 to 30	7 to 30
Si	> 2.50 to 8.00	≤ 2.5	2.5
Al	Al + Si > 3.5 to 12.00	≤ 6	See below

Since the ranges overlap, a prima facie case of obviousness exists (see M.P.E.P. § 2144.05). Further, at overlapping Si composition of 2.5, ranges of Al can be selected from the

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disclosed amount of ≤ 6 that satisfy the relationship $Al + Si > 3.5$ to 12.00. Guelton et al discloses casting to form a thin strip (col. 3 lines 32-39), hot rolling (col. 3 lines 59-67), coiling (i.e. winding) (col. 4 lines 19-29) and cold rolling (col. 4 lines 31-41) followed by recrystallization annealing (col. 4 lines 42-65) and if desired by skin-pass (i.e. temper rolling) operation by the usual methods (col. 5 lines 35-38). Guelton et al does not recite that the skin pass (i.e. temper rolling) is cold forming at between 2 to 25% (claim 1) or a maximum of 15% (claim 2) or a maximum of 10% (claim 3).

Regarding cold forming, Satoh et al teaches a method of manufacturing formable as-rolled thin steel sheets (abstract). The sheets undergo skin-pass rolling of not more than 10% (column 12, lines 30-39). The effect of high strain rate is not substantially dependent on the chemical composition of the steel (column 10, lines 33-36). The examiner notes that this process does not include cold rolling (column 4, line 63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the steel in Guelton et al with a cold forming process of less than 10% as taught by Satoh et al, since both Satoh et al (in column 1, line 14) and Guelton et al (column 1, lines 22 and 23) both teach producing steel strips from rolled processes using cold forming techniques for use as automobile components.

With respect to claims 5-8, Guelton et al teaches that the temperature at which the hot rolling and coiling is carried out is not of great importance (col. 4 lines 1-30). It is well settled that where the principal difference between a claimed process and that taught by reference is a temperature difference, it is incumbent upon applicants to establish the criticality of that difference (Ex parte Khusid, et al, 174 USPQ 59).

¹ Based on English abstract.

Alternatively, regarding claims 5-7, Guelton et al does not disclose that the steel is heated to at least 1100 °C before hot rolling (claims 5 and 6) or exit temperature of at least 800 °C (claim 7).

Brager et al discloses a steel of similar composition (abstract and Table I) which is heated to about 1250 °C for homogenization heat treatment prior to hot rolling, then reheated to 1000 °C before hot rolling (col. 6 lines 64-68). It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat to about 1250 °C for homogenization as taught by Brager et al the steel of Guelton et al in view Satoh et al, since Brager et al discloses this temperature for homogenization of a similar steel subjected to a similar process.

JP '418 discloses production of a high manganese (16-30%) steel by a similar production method and teaches that heating the slab to above 900 °C and holding at between 1200 and 1050 °C prevents cracking during hot-rolling (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the steel to above 900 °C and holding at between 1200 and 1050 °C as taught by JP '418 in the process of Guelton et al in view Satoh et al to prevent cracking as taught by JP '418.

With respect to claims 9-12, Guelton et al discloses recrystallization annealing after cold rolling at a temperature of between 800 and 850 °C for continuous annealing and 700 to 750 °C for box (i.e. bell type) annealing (col. 4 lines 42-59). Both ranges are within the claimed range of between 600 and 1100 °C (claim 10) and overlap the range of 750 to 1100 °C (claim 12). 700 to 750 °C is within the range of 600 to 750 °C (claim 11).

With respect to claim 13, Guelton et al discloses that the cold rolling is from 10 to 90% (col. 4 lines 31-40), which overlaps the claimed range of 30 to 75%.

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With respect to claim 14, the Si content of 2.5% is close enough to 2.7% that one of ordinary skill in the art would expect the same results therefor a prima facie case of obviousness exists (M.P.E.P § 2144.05).

With respect to claims 15 and 16, Guelton et al discloses B as part of a sum of alloying constituents whose sum is $\leq 3\%$. The range of $\leq 3\%$ overlaps the claimed ranges of 0.002 to 0.01% (claim 15 and 0.003 to 0.008% (claim 16), therefore a prima facie case of obviousness exists.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 9-13, 15 and 16 of copending

Application No. 10/344,192 in view of Satoh et al .

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Application '192 teaches producing strips from steel. The steel has the composition as listed on page 1 (or Claim 1). The steel has high strength (Claim 1). The steel strip is cold-rolled (Claim 10). The cold rolled strips are subsequently cold formed (Claim 16). Regarding Claim 4, the strip is cast, hot rolled, coiled, and cold rolled (Claims 9 and 10). Regarding Claims 5 and 6, the cast stock is heated to 1100 °C (Claim 9). Regarding Claim 7, the final rolling temperature is at least 800 °C (Claim 9). Regarding Claim 8, the coiling temperature is 450-700 °C (Claim 9). Regarding Claims 9-12, annealing is at 600-1100 °C (Claim 11) hood or bell annealing at 600-750 °C (Claim 12) , and continuous annealing at 750-1100 °C (Claim 13). Regarding Claim 13, the cold rolling reduction is 30-75% (Claim 15). Regarding Claim 14, the Si content is > 2.70% (Claim 3). Regarding Claims 15 and 16, the B content is 0.002-0.01% (Claim 4). However, Application '192 does not disclose the degree of cold forming as claimed.

Satoh et al teaches a method of manufacturing formable as-rolled thin steel sheets (abstract). The sheets undergo skin-pass rolling of not more than 10% (column 12, lines 30-39). The effect of high strain rate is not substantially dependent on the chemical composition of the steel (column 10, lines 33-36). The examiner notes that this process does not include cold rolling (column 4, line 63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the steel in Application '192 with a cold forming process of less than 10% as taught by Satoh et al, since both Satoh et al (in column 1, line 14) and Application '192 (Claim 18) both teach producing steel strips from rolled processes using cold forming techniques for use as automobile components.

This is a provisional obviousness-type double patenting rejection.

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Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tima M. McGuthry-Banks whose telephone number is (571) 272-2744. The examiner can normally be reached on M-F 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TMM 
2 January 2008


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